

WHAT IS CLAIMED IS:

1. (Currently amended) A method of burn-in testing an electronic device, comprising:
 - attaching the device to a burn-in board;
 - placing a first thermally conductive sheet atop the device such that the thermally conductive sheet contacts the device;
 - placing a second thermally conductive sheet beneath the burn-in board and separated therefrom by an electrically insulating but thermally conductive sheet;
 - inserting the burn-in board with the device and the thermally conductive ~~sheet~~ sheets into a chamber, wherein the environment within the chamber is controllable;
 - applying current to the device; and
 - controlling the environment within the chamber.
2. (Currently amended) The method of claim 1, wherein at least one of the thermally conductive ~~sheet~~ sheets has at least the thermal conductivity of aluminum.
3. (Currently amended) The method of claim 1, wherein at least one of the thermally conductive ~~sheet~~ sheets is composed of aluminum.
4. (Currently amended) The method of claim 1, wherein at least one of the thermally conductive ~~sheet~~ sheets is composed of copper.
5. (Currently amended) The method of claim 1, wherein the first thermally conductive sheet has dimensions configured to have a top surface area greater than that of a ~~sheet that has a flat top~~ surface.

6. (Currently amended) The method of claim 1, wherein a portion of the first thermally conductive sheet that is in contact with the device is configured to have a greater contact area with the device than ~~a sheet that has~~ of a flat ~~bottom~~ surface.
7. (Original) The method of claim 1, further comprising:
sending at least one test signal to the device;
receiving data from the device; and
analyzing the data received from the device.
8. (Cancelled)
9. (Currently amended) The method of claim ~~[[8]]~~ 1, wherein the electrically insulating but thermally conductive sheet is composed of silicon rubber impregnated with aluminum oxide.
10. (Currently amended) The method of claim ~~[[8]]~~ 1, wherein the device is attached to the burn-in board via a socket that includes an electrically insulating but thermally conductive slug that contacts both the bottom surface of the device and the top surface of the burn-in board.
11. (Original) The method of claim 10, wherein the slug is composed of silicon rubber impregnated with aluminum oxide.
12. (Currently amended) The method of claim 1, wherein a plurality of electronic devices are burn-in tested simultaneously.
13. (Currently amended) A method of burn-in testing a plurality of electronic devices, comprising:
attaching the plurality of devices to a burn-in board;

placing a first thermally conductive sheet atop the plurality of devices such that the thermally conductive sheet contacts the devices;

placing a second thermally conductive sheet beneath the burn-in board and separated therefrom by an electrically insulating but thermally conductive sheet;

inserting the burn-in board with the plurality of devices and the thermally conductive sheet into a chamber, wherein the environment within the chamber is controllable;

applying current to each of the devices; and

controlling the environment within the chamber.

14. (Cancelled)

15. (Currently amended) The method of claim [[14]] 13, wherein the device is attached to the burn-in board via a socket that includes an electrically insulating but thermally conductive slug that contacts both the bottom surface of the at least one of the devices and the top surface of the burn-in board.

16. (Currently amended) An apparatus for testing an electronic device, comprising:
a burn-in board to which the device may be attached;
a first thermally conductive sheet that may be positioned atop the device such that the thermally conductive sheet contacts the device;

a second thermally conductive sheet located beneath the burn-in board and separated therefrom by an electrically insulating but thermally conductive sheet;

a controlled-environment chamber; and

a current source that applies current to the device.

17. (Currently amended) The apparatus of claim 16, wherein at least one of the thermally conductive ~~sheet~~ sheets has at least the thermal conductivity of aluminum.
18. (Currently amended) The apparatus of claim 16, wherein at least one of the thermally conductive ~~sheet~~ sheets is composed of aluminum.
19. (Currently amended) The apparatus of claim 16, wherein at least one of the thermally conductive ~~sheet~~ sheets is composed of copper.
20. (Currently amended) The apparatus of claim 16, wherein the first thermally conductive sheet has dimensions configured to have a top surface area greater than that of a ~~sheet that has a flat top~~ surface.
21. (Currently amended) The apparatus of claim 16, wherein a portion of the thermally conductive sheet that is in contact with the device is configured to have a greater contact area with the device than ~~a sheet that has~~ of a flat ~~bottom~~ surface.
22. (Original) The apparatus of claim 16, further comprising:
a test signal generator that sends at least one test signal to the device;
a test signal receiver that receives data from the device; and
a test signal analyzer that analyzes the data received from the device.
23. (Cancelled)
24. (Currently amended) The apparatus of claim ~~[[23]]~~ 16, wherein the electrically insulating but thermally conductive sheet is composed of silicon rubber impregnated with aluminum oxide.
25. (Currently amended) The apparatus of claim ~~[[23]]~~ 16, further comprising:
a socket for attaching the device to the burn-in board; and

an electrically insulating but thermally conductive slug inserted through the socket such that the slug contacts both the bottom surface of the device and the top surface of the burn-in board.

26. (Currently amended) The apparatus of claim [[23]] 25, wherein the slug is composed of silicon rubber impregnated with aluminum oxide.

27. (Currently amended) The apparatus of claim 16, wherein the burn-in-board is configured so that a plurality of electronic devices may be mounted on the burn-in-board, and the first thermally conductive sheet is configured so that the first thermally conductive sheet contacts the plurality of electronic devices.

28. (Currently amended) The apparatus of claim 16, further comprising at least one device for biasing the first thermally conductive sheet against the electronic device.

29. (Currently amended) An apparatus for testing a plurality of electronic devices, comprising:

a burn-in board to which the plurality of devices ~~may be~~ is attached;

a first thermally conductive sheet that may be positioned atop the plurality of devices such that the thermally conductive sheet contacts the devices;

a second thermally conductive sheet located beneath the burn-in board and separated therefrom by an electrically insulating but thermally conductive sheet;

a controlled-environment chamber; and

a current source that applies current to the devices.

30. (Cancelled)

31. (Currently amended) The apparatus of claim ~~[[30]]~~ 29, further comprising:

sockets for attaching the devices to the burn-in board; and

electrically insulating but thermally conductive slugs inserted through the sockets

such that a slug contacts both the bottom surface of the device mounted in the socket and

the top surface of the burn-in board.